

Institutional contradiction and BSC implementation: comparative organizational analysis

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Abstract

Purpose – This paper aims to explain institutional contradictions in the balanced scorecard (BSC) implementation process between organizations, which successfully implemented BSC. The purpose of this paper is to identify a comprehensive set of potential determinants influencing the successful implementation of BSC.

Design/methodology/approach – This study is an exploratory investigation into the BSC implementation based on a dialectical perspective. It uses the triangulation of data collection including interviews, documents and surveys. This also includes a comprehensive scrutiny of the relevant literature; a comprehensive analysis of case studies of BSC implementations in four organizations; and interviews and documents evidences that have already implemented or are in the process of implementing BSC.

Findings – The BSC was successfully implemented in the organizations, when the accounting systems introduced in these organization had already been institutionalized, that is, accepted and used on day-to-day basis. The dialectical perspective postulates that for change to become institutionalized in the organization, it needs to overcome the problem of embedded agency. This process of change is possible due to the accumulation of institutional contradiction that enables human praxis to introduce change (Seo and Creed, 2002).

Research limitations/implications – There is a need to empirically test and refine the proposed factors and explore relationships among the various variables by collecting data from organizations that have already implemented BSC.

Practical implications – The findings of this study are important and relevant to all the different-sized organizations in the different sectors and industries. This study also makes a significant contribution to society in general.

Originality/value – This paper contributes to the literature on organizational and accounting change that emphasis the crucial role that institutional contradiction plays in the process of BSC implementation. The findings of this study will help management in making crucial decisions and in resource allocations that are required to make the BSC implementation a success.

Keywords Benchmarking, Balanced scorecard, Critical success factors, Performance measures, Organizational analysis

Paper type Research paper



1. Introduction

Balanced scorecard (BSC) is based on using financial indicators with other performance indicators, especially non-financial indicators, to create a perspective that incorporates both

financial and non-financial parts, which were suited for measuring the performance and value creation of business. Therefore, the BSC retains traditional financial measures. But financial measures tell the story of past events, an adequate story for industrial age companies for which investments in long-term capabilities and customer relationships were not critical for success. These financial measures are inadequate, however, for guiding and evaluating the journey that information age companies must make to create future value through investment in customers, suppliers, employees, processes, technology, and innovation (Kaplan and Norton, 1996).

BSC presents a tool for translating an organization's mission (embodied in its strategy) into more tangible measurable goals, actions and performance measures. The technique is documented by Kaplan (2005, 1996, 1994) and was derived following the realization that no single performance indicator could fully capture the complexity of an organization's performance (Epstein and Manzoni, 1998). However, the BSC approach, which can be applied at different levels (total organization, strategic business unit (SBU), individual operational units, or even to individuals), involves identifying key components of operations, setting goals for them, and finding ways to measure progress towards their achievement (Evans, 2005; Sandkuhl *et al.*, 2003; Walker, 1996). Moreover, traditional financial measures, viewed as lagging indicators of performance, are balanced with non-financial measures, which are lead indicators and serve to drive future performance. The measures are not to be viewed merely as a collection of various metrics (Kaplan and Norton, 2001), but instead they are selected to show cause and effect in the implementation of the company's mission and organizational strategy.

Measuring organizational success and implementing effective strategies for future success represent continuous challenges for managers, researchers and consultants. Whilst financial measures are clearly important, new frameworks have emerged in recent years that take into account a broader range of measures. These frameworks aim to respond to the criticisms levelled at financial measures, namely that they are one-dimensional and that they are inherently backward looking in that they record a "history of a firm" (Chakravarthy, 1986; Evans, 2005; Rao, 2006). Recognizing relevance lost in the performance measures of the traditional management, Kaplan and Norton (1992, 1996a, 1996b) developed the theory of the balanced scorecard (BSC) as an approach to integrating financial and non-financial measures into management in the hyper-competitive environment.

The difficulty in explaining BSC implementation process is due to the fact that institutional theory postulates that the actions of organizational actors are constrained by internal and external institutions. Therefore, institutional theory is unable to answer many questions, such as how organizational actors come to recognize the need to change, and how organizational actors recognize the opportunities and alternatives for change (Burns and Baldvinsdottir, 2005). To overcome this theoretical dilemma, Seo and Creed (2002) proposed a framework which uses a dialectical perspective based upon Benson's (1977) paper to explain institutional change. The main pillar of this framework is the view that institutional change should be understood as an outcome of the dynamic interactions between institutional contradictions and human praxis. In accounting change research, a number of authors (Burns and Baldvinsdottir, 2005; Abrahamsson and Gerdin, 2006; Burns and Nielsen, 2006; Hopper and Major, 2007; Sharma *et al.*, 2010) have started to use the Seo and Creed's (2002) framework to explain the process of institutional change in accounting. In the same way, this study uses Seo and Creed's (2002) framework to explain the process of BSC implementation in different organizations.

This paper is structured after introduction as follows. Section 2 reviews the key literature on BSC. Then, we move to explain the theoretical framework adopted in this study. After

this, the research method and the cases studies are described. The following section deals with the case study by explaining the Balanced Scorecard implementation and the determinants for successful implementation in the cases. The next section provides the discussion of the results. The final section presents the main conclusions.

2. Literature review

The balanced scorecard was first established in the early 1990s. Harvard Business School and Professor Robert Kaplan have played an important role in developing the balanced scorecard (Ax and Bjørnenak, 2007). There have been other advantages of using BSC. For instance, BSC can be used as a marketing tool to communicate the benefits of privately owned grid-connected photovoltaic systems to potential customers and to utilities and businesses that are seeking new markets (Bach *et al.*, 2001). The use of the environmental BSC approach helps to identify the right measures in use of those types of environmental performance indicators that are most closely linked to strategic business objectives (Johnson, 1998). Furthermore, Garcia-Valderrama *et al.* (2009) define that as a suitable framework for analyzing the relationships between perspectives of BSC, focussing on R&D activities. Also, the framework is analyzing the success of companies, in respect of the achievement of their financial, commercial and organizational aims, from the starting point of the resources utilized and the processes carried out in an increasingly strategic activity such as R&D (Garcia-Valderrama *et al.*, 2009).

Huang (2009) proposes an incorporated approach for the BSC system and knowledge-based system, using nonparametric as an analytic hierarchy process technique. He also develops an intellectual BSC knowledge-based system for strategic planning that sets or chooses company's management or operational strategies based on the following perspectives: learning and growth, internal/business process, customer and financial performance. This system can help determine the weight of specific strategies (Huang, 2009). The intelligent BSC knowledge-based system can help clients to execute strategic plans for improved business results more effectively. Furthermore, the intelligent BSC knowledge-based system is suitable for substantial start-ups, established businesses and SBUs.

On the other hand, there are some critical points confronting the BSC. For example, BSC may motivate inappropriate action by managers based on the information fed to them (Nørreklit, 2000). He confirms that the evidence available on BSC is currently quite ambiguous. Also, there is no cause-and-effect relationship between some of the suggested areas of measurements in the BSC (Nørreklit, 2003). The same author, in another article, affirms that the BSC has problems with some of its main assumptions and relationships:

First, there is not a causal but rather a logical relationship among the areas analyzed. Customer satisfaction does not necessarily yield good financial results. Assessing the financial consequences of increased customer satisfaction or quality improvements requires a financial calculus [. . .]. Therefore, the balanced scorecard makes invalid assumptions, which may lead to the anticipation of performance indicators which are faulty, resulting in sub-optimal performance. Second, the balanced scorecard is not a valid strategic management tool, mainly because it does not ensure any organizational rooting, but also because it has problems ensuring environmental rooting. Consequently, a gap must be expected between the strategy expressed in the actions actually undertaken and the strategy planned. We therefore conclude that the balanced scorecard needs to be adjusted and developed. (Nørreklit, 2000)

Thompson and Mathys (2008) confirm that problems occur with effective application of BSC. These problems appear to focus on four main issues (Thompson and Mathys, 2008). Firstly, there has been a lack of understanding of the importance of processes within

organizations. Secondly, there has been a lack of understanding of the alignment between items within the scorecard. Thirdly, there is a need to measure the right information, because some users of BSC have not understood the linkages. Fourthly, there is a need for an understanding of how organizational strategy relates to the scorecard. Moreover, other problems in BSC can be proved as follows:

Balanced scorecard-based systems suffer from two problems. Firstly, variables which are to be measured have associated vagueness, it being much more natural to refer to their values using a linguistic label instead a numerical value as frequently is done. Secondly, data do not have an explicit representation of their semantics; ad hoc solutions are usually implemented for each problem, making developers duplicate efforts and users cope with their specific details. (Bobillo *et al.*, 2009)

Kaplan and Norton (1996) explain that the BSC allows managers to look at the business from four important perspectives. It provides the answers to four basic questions. First, how does the customer see us? This question leads to a customer perspective, with measurement of customer relations. The second question is: What do we need to excel in? This question leads to an internal perspective of processes and co-workers in the organization. The third question asks: Can we continuously improve our ability to create value? This question leads to an innovation and learning perspective where we look for future success already today. The last question is: How does the owner see us? This question points out the financial perspective as something the organization must handle well (Kaplan and Norton, 1992; Mohamed, 2003; Gumbus and Wilson, 2004; Karathanos and Karathanos, 2005; Angel and Rampersad, 2005; Wells and Weiner, 2005).

Van der Meer and Vosselman (2004) argue that the main purpose of the BSC model is to put the company's vision and strategy into action. It puts strategy and vision, not control, at the centre. It establishes goals, but assumes that personnel will adopt whatever behaviour and take whatever actions are necessary to arrive at those goals (Debnath *et al.*, 2004; Phillips, 2004; Kettunen and Kantola, 2005; Urrutia and Eriksen, 2005; Valiris *et al.*, 2005). Kaplan and Norton (1992) also emphasize that:

The BSC [...] provides executives with a comprehensive framework that translates a company's strategic objectives into a coherent set of performance measures [...]. It complements traditional financial indicators with measures of performance for customers, internal processes, and innovation and improvement activities[...].

3. Institutional contradiction framework

The concept of contradictions is grounded on Seo and Creed's (2002) framework, because it can explain when, how and why institutionally embedded agents might come to challenge, and subsequently attempt to change their and other's taken-for-granted beliefs and ways (Burns and Baldvinsdottir, 2005). As a consequence, institutional contradictions can contain the seeds of institutional change. Contradictions, which generate conflicts among the organizational actors, create the conditions for institutional change to take place because groups or individuals recognize the need for change and, subsequently, put ideas into practice through human praxis (Burns and Nielsen, 2006).

Seo and Creed (2002) identified four sources of contradiction: technical inefficiency, nonadaptability, institutional incompatibilities, and misaligned interests. First, isomorphic conformance to the prevailing institutional arrangements to obtain legitimacy might be at the expense of technical efficiency. A number of authors highlight that conformity to institutional arrangements may conflict with technical activities and efficiency demands (Meyer and Rowan, 1977; Powell and DiMaggio, 1991). The possibility of loose coupling can

lead to a discrepancy between the functional/technical requirements of the company and institutional requirements. This possible discrepancy can be a source of institutional contradictions. [Seo and Creed \(2002, p. 227\)](#) conclude that:

Even if institutionalized organizations make decisions that improve both legitimacy and technical efficiency in the short run, those decisions easily become suboptimal if new optimal solutions are not continually pursued and adopted.

Second, contradictions can arise from non-adaptability to the external environment. According to [Burns and Baldvinsdottir \(2005\)](#) once institutions are in place, they tend to be self-enforcing and taken-for-granted. As a result, there is little or no response to shifts in external factors due to psychological and economic lock-in towards (internal) institutional arrangements. [Seo and Creed \(2002, p. 228\)](#) summarize this source of contradiction by stating that:

Although institutionalization is an adaptive process, once in place, institutions are likely to be both psychologically and economically locked in and, in a sense, isolated from unresponsive to changes in their external environments.

As a consequence, this nonadaptability creates a space where contradictions between the present institutions and their external environments develop and accumulate over time.

The third source of contradiction is related to intra-institutional conformity that creates inter-institutional incompatibilities. In other words, conformity to specific institutional arrangements often leads to conflict with alternative institutions. [Seo and Creed \(2002\)](#) emphasize that individual and organizations are increasingly exposed to multiple and contradictory, yet interconnected, institutional arrangements. As a consequence, an organization or individual that conforms to particular embedded institutional arrangements might be incongruent to other institutional settings and different time-space circumstances ([Burns and Baldvinsdottir, 2005](#)). Therefore, these incompatibilities between institutions are the third source of institutional contradiction.

Finally, the fourth source of contradiction is due to political struggles among various participants who have divergent interests and asymmetric power ([Seo and Creed, 2002](#)). [Seo and Creed \(2002\)](#) point out that actors whose ideas and interests are not adequately served by the existing social arrangements can act as potential change agents who, in some circumstances, become conscious of the institutional conditions. Therefore, contradiction can emerge due to misalignment between institutionalized ways and the divergent perceived interests of actors embedded in such ways ([Burns and Nielsen, 2006](#)). [Seo and Creed \(2002\)](#) suggest that these four sources of contradictions are not separate and mutually exclusive but are likely to be interconnected over time.

Institutional contradictions are the essential driving forces of institutional change, but they do not inevitably lead to institutional change. [Seo and Creed \(2002\)](#) state that human praxis is a necessary mediating mechanism between institutional contradictions and institutional change. Praxis defines human agency of a political nature which, though embedded in existing institutions, attempts to influence and secure change in the institutional configuration ([Burns and Nielsen, 2006](#)). In the same vein, [Benson \(1977, pp. 5-6\)](#) emphasizes that “people under some circumstances can become active agents reconstructing their own social relations and ultimately themselves”. Praxis can be defined as “a particular type of collective human action, situated in a given socio-historical context but driven by the inevitable by-products of that context-social contradiction” ([Seo and Creed, 2002, p. 230](#)). In addition, [Benson \(1977, p. 1977\)](#) state that the aim of praxis is “the free and creative reconstruction of social arrangements on the basis or a reasoned analysis of both limits and the potentials of present social forms”.

Although contradictions may create openings for institutional change, it is praxis that encapsulates the “doing” of change (Burns and Baldvinsdottir, 2005). According to Seo and Creed (2002, p. 230) praxis has three component parts:

- (1) actors’ self-awareness or critical understanding of the existing social conditions, and how these social conditions do not meet actors’ needs and interests;
- (2) actors’ mobilization, rooted in new collective understandings of the institutional arrangements and themselves; and
- (3) actors’ multilateral or collective action to reconstruct the existing social arrangements and themselves.

In addition, Benson (1977) points out that praxis involves two moments:

- (1) reflective, when actors critique existing institutions and search for alternatives; and
- (2) active, when political mobilization and collective action take place.

To summarize the Seo and Creed (2002) framework, the seed of institutional change is the accumulation of institutional contradictions (technical inefficiency, nonadaptability, institutional incompatibilities, and misaligned interests) both within and between institutions. Institutional contradictions may trigger, enable, and limit praxis for institutional change. However, Seo and Creed (2002) highlight that the relationship between contradictions and praxis is not a linear causal model, because of the complex dynamics possibly involved in the process of institutional change.

4. Research methodology

This study uses a combination of quantitative and qualitative methods, involving a population sample and a case study approach. The application of mixed methods intends to minimize the potential disadvantages. This study focusses on the description and analysis of the qualitative data collected by considering the critical factors of BSC implementation. Data were collected from four organizations, one interview in each, two in Saudi Arabia and two in the UK. The required data for writing the cases was collected through the organization’ records, field observations and one-to-one interviews with the organizations’ representative. For triangulation, both primary data from interviews, and secondary data from corporate brochures were used. The main objective in undertaking the case studies is to provide in-depth data as a supplement to the broad based quantitative analysis of the questionnaire survey. They also give a different perspective, resulting from a multidisciplinary, integrative inquiry and process over time.

The organizations selected were the Saudi Telecom Corporation (STC), Zamil Air Conditioners (ZAC) in Saudi Arabia, Mortgage Express (ME) in the UK and United Utilities (UU) in the UK. All these organizations had installed a BSC and had begun to gain some benefits from it. The four organizations were selected mainly because they are widely recognized as being among the most successful organizations in Saudi Arabia and the UK. They were also among the few that permitted the researcher to enter into co-operation.

The interviewed organizations were from different sectors, telecommunications, the manufacturing, the financial, and services sector. This differentiation may provide the study with various viewpoints that may support the study and give a diversity of information. The below table also shows that two of the interviewed organizations are medium-sized and the other two can be considered as large companies. All the organizations had implemented the BSC for five years or more; consequently, the data gathered may be more reliable and

give a clear viewpoint about BSC implementation. In addition, the positions of interviewees were from the medium and high levels in their companies, and they were involved in the BSC project. This, in turn, may provide the study with viewpoints of experts in BSC implementation (Table I).

Primarily, all interviewees strongly agreed that the executives and senior managers' commitment and support is a very crucial factor for BSC success. They believe that motivation can come from senior managers and "move up" to the chief executive officer (CEO) or can be ordered "from the top down". The interviewees also believe that the top management provided enough resources and support for the BSC project from the beginning until the end. However, the ways to get top management involved in the BSC project and the nature of their participation varied from company to company (Table II).

The interview was conducted in the Head Office in Warrington, UK, with the Head of Strategy and Support Services. The interview lasted about 1 h. All interviewees stated that successful BSC implementations require strong leadership, commitment, and participation by top management.

5. Cases: Participating organizations

5.1 The Saudi Telecom Corporation

STC, established in 1998, is the largest provider of telecommunications in Saudi Arabia. Great progress in telecommunication networks has been recently achieved. The STC serves the largest number of subscribers in the Middle East, providing multiple communications services, fixed and mobile, voice and data services, based on a variety of transmission systems, including microwave, fibre optic, coax, satellite and submarine facilities. The fixed network and mobile telecommunications serve approximately eight million customers in Saudi Arabia. The company's ADSL subscribers increased from 3,000 at the end of March

Table I.
Information about organizations and interviewees

	STC	ZAC	ME	UU
Based	Saudi Arabia	Saudi Arabia	UK	UK
Primary business	Telecommunications	Manufacturing	Financial	Services
Number of employees	21,500	750	450	17,000
Year of BSC implementation	2000	2001	2001	1999
Interviewee position	Director of Corporate Performance	Executive Assistant	Head of	
Excellence	Head of Strategy			
Interviewee gender	Male	Male	Female	Male

Table II.
Reasons for top management support of BSC and nature of their participation

Company	Reason (s) for top management support of BSC	Nature of participation
STC	Performance measurement	Regular meeting Monitoring Reporting
ZAC	Strategy Management	Regular meeting
ME	Performance measurements Strategic objective measurement	Regular meeting Empowerment
UU	Performance measurement	Regular meeting Reporting

2003 to 12,000 at the end of June 2004. STC since its establishment in 1998 has delivered a range of positive results that have delivered better service to more customers. This has been achieved through an ambitious Transformation and Restructuring Program, along with an extensive expansion of network and infrastructure.

By the end of 2002, the Saudi Government announced that 30 per cent of STC shares would be released for sale to Saudi citizens and organizations. The general public took 20 per cent of shares, General Organisation of Social Insurance (GOSI) took 5 per cent, and the Pension Fund Organisation also took 5 per cent. By the end of the subscription period, requests for shares exceeded the number offered by 3.5 times. The STC started to plan for BSC development in early 1999. In 2000, a pilot study started in specific divisions. At the end of 2000, the top management agreed to start BSC implementation for the whole company. The Department for Total Performance was responsible for following the course of BSC implementation and for sorting out any problem. The STC decided to convert BSC applications from manual to automated. The director said "A lot of BSC softwares were available but we were very careful to choose the suitable system that may serve our requirement [. . .] therefore, we decided to choose CorVu". The software was installed at the end of 2002 for the whole company. As mentioned earlier, STC was a public company that became private in 1998. Top management was looking for a specific system to help the company measure employee performance against company strategy. STC needed to "measure employee satisfaction and deliver its strategy in a proper way [. . .] therefore the BSC was found to be the system that may help them".

5.2 Zamil Air Conditioners

ZAC was founded in 1974, and was the first major business venture in the manufacturing sector for the Al Zamil Group of Companies. It was also the first manufacturing unit for air conditioners to be established in Saudi Arabia. AZC manufactures both a consumer and a commercial range of air conditioners and has sales operations in over 55 countries in the Middle East, Europe, America, Africa, Australia and the Far East. Company operations are structured into six SBUs supporting six in-house product and service brands and a number of international brands under the OEM Sales. The six in-house brands are Classic, Cooline, CoolCare, Clima Tech, Geoclima and Kessler Clima Tech. Since 1992, ZAC has been producing branded air conditioners under OEM Sales for some of the world's leading air conditioner brands. The manufacture of these brands at ZAC is a testimony to the high standard production processes being followed at ZAC.

Most of the units produced under the private labelling agreements are for window and mini-split systems; however, the company expects to expand its OEM offering in the residential and light commercial units as well, under the Unitary range. ZAC has its prime manufacturing base at Dammam, Saudi Arabia, and two other specialist production facilities in Austria and Italy, operated by Clima Tech and Geoclima, respectively. The company can produce up to 440,000 room air conditioners, 60,000 mini-split systems and 36,500 central air-conditioning systems per year:

- Quality systems and policies at ZAC are approved according to ISO 9001: 2000 certification. ZAC is the first company in Saudi Arabia to receive the SASO (Saudi Arabia's Standard Organisation) certificate for room air conditioners.

In 2001, ZAC set about developing its first formal strategic plan. The process adopted was designed to reflect 'best practice' strategic planning methods, and was founded upon the development of strongly rational SBU level plans. Each SBU was asked to develop strategic documents outlining its medium to long-term manufacturing and sales plans, linked to a

three-year business plan/forecast. However, the directors agreed that ZAC needed to think and manage more strategically at corporate level and, in late 2001, the business development director developed a first ever corporate strategic plan for ZAC. Key components of the strategy were to improve operational efficiency and quality, source globally, enhance customer relationships, and focus on being innovative and helping the organization to grow.

The business development director and the vice-president agreed that there was also a need to strengthen ZAC's ability to manage the implementation of the strategy. The CFO stated that to resolve this:

ZAC's appointed external consultants to assess ZAC's operations and markets, and confirm the validity of the strategic plan. The same consultants would then also develop a corporate BSC to address the strategy implementation issue.

The BSC project had two phases. The first concerned the development of consensus among the directors and senior managers of ZAC concerning its strategic goals, the actions needed to deliver these goals, and the design of the BSC that would consequently be used to report on corporate progress against these goals. The second concerned the communication of the content of this consensus within ZAC, and the physical installation of the BSC as a working tool to be used by ZAC's management (Cobbold *et al.*, 2004).

ZAC developed a strategic linkage model, a set of short and medium-term objectives organized in a cause-and-effect diagram known as a strategic linkage model (Figure 1). The objectives were grouped according to whether they related to activities to be carried out by ZAC (activity objectives), or hoped for consequences of these (or other) actions (outcome objectives). The definition of each objective was recorded in some detail using a common form that captured attributes, such as name, description, owner and likely measures of achievement (Cobbold *et al.*, 2004).

5.3 Mortgage Express

ME was established in 1986. ME is the specialist lending arm of the Bradford and Bingley Group PLC. ME is based in New Barnet, Herts, Fordshire, and currently employs 300 people. ME has gained a reputation for friendly, efficient service, mortgage products that meet the

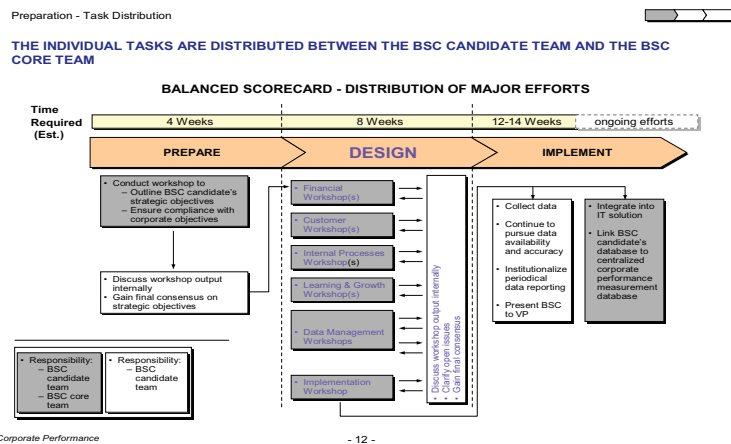


Figure 1. STC initial plan for BSC implementation

Source: STC Documents (2005)

needs of real people, and a streak of individuality that ranks it among the market leaders in its chosen niche markets. ME currently manages over £16 billion of mortgage assets. ME is the market leading “Buy to Let” lender and is rapidly developing a reputation as a leading lender in the “Self Cert” and “100 per cent” markets. Its product range also includes “Standard”, “FlexAbility”, “Lifetime” and “Max 130”. All ME products (except Lifetime) offer Choices, a flexible payment feature, as an integral part of the mortgage. Choices enables people to overpay or underpay their mortgage or even take a payment holiday.

ME sells its products through independent mortgage advisers, or brokers. It has also established partnerships with most major mortgage intermediary networks and clubs. ME is a customer-focussed organization, and has invested considerably in its technology, its processes and its personnel. Brokers are its best suppliers of business, so it has a dedicated Contact Centre to ensure that it answers queries quickly and efficiently. ME also has a team of sales managers across the country whose task it is to keep brokers informed about products and provide a point of contact at local level. Finally, ME was presented with the British Quality Foundation Award in 1996. ME started thinking about BSC implementation in mid-2000. The Head of Business Excellence was appointed to be the owner of the project. She believed that, “at the beginning, the mission was not easy”.

One of the main objectives of top management is to think and manage more strategically at all levels. The Head of Business Excellence suggested that BSC would achieve this objective. The CFO stated that:

My team and I asked each SBU to establish its own objective and suggest the suitable measurements. After that, we established the cause-and-effect relationships between the objectives and measures.

BSC implementation started in ME in early 2001. Unfortunately, the company has not yet installed an automated BSC, but instead they use Excel Office to manage and deliver BSC results. The CFO believes that “BSC automation is very important for us; therefore, one of our priorities is to find the appropriate software for BSC”.

5.4 United Utilities

UU PLC was created from the merger of North West Water and Norweb in November, 1995. Its shares are listed on both the London Stock Exchange and New York Stock Exchange (in the form of ADRs). Its principal activities were to manage and operate the regulated distribution of electricity, water and wastewater networks in North West England, a region with a population of around seven million. However, in August, 2000, UU sold its electricity and gas supply business and, as a result, no longer has any significant exposure to the competitive UK generation and supply market. In addition to operating utility networks in the North West, the group also owns two support service businesses: United Utilities Contract Solutions and Vertex. These businesses apply the group’s core skills of infrastructure management and business process management in the provision of services to others.

UU also operates a medium-sized alternative telecommunications provider called Your Communications. This has a dense network in the north of England, complemented by a lean national network. UU is a member of the FTSE 100 group of leading UK listed companies and employs over 17,000 people. As mentioned earlier, there are four divisions within the group. Vertex and Your Communications have their own brands but the other two divisions operate under the United Utilities name. UU’ regulated division manages electricity distribution, water and wastewater networks, serving 2.9 million customer premises in North West England, and has over 30 sites across the country providing

business services to clients. UU also manages water and wastewater networks in Wales and wastewater treatment facilities in Scotland. It provides specialist waste treatment, multi-utility metering and connection services to industry and delivering business communications services across the UK.

UU has a strong position in the UK, both in market share and brand strength, and it attempted to keep this position by improving some aspects of the company. One of those was performance measurement. UU was looking for a system to enable the company to measure its strategic objectives. Many system options were available, but management believe that BSC was the best. In 1999, UU started to implement BSC in association with a KPI system. The CFO stated that "Balanced Scorecard gives us a way of measuring the company performance against controlled objectives and within a specific strategy map". Consequently, each department was asked to set its own strategic objectives and a few suggested measurements. Then, the BSC team had many meetings with the top management to finalize the company's objectives and measurements. The CFO reported that "The company have no specific software for BSC, but the BSC's results are distributed to the management and the employees through the intranet".

6. Case studies: analysis and results

The section presents the analysis of the cases findings. In this section, the data analysed based on the interviewees and experiences of the four case studies, two of which are successful Saudi organizations and two are UK organizations, are analysed.

6.1 Cases description analysis

Table III shows that the interviewed organizations were from different sectors, telecommunications, the manufacturing, the financial, and services sector. This differentiation may provide the study with various viewpoints that may support the study and give a diversity of information. The table also shows that two of the interviewed organizations are medium-sized and the other two can be considered as large companies. All the organizations had implemented the BSC for five years or more; consequently, the data gathered may be more reliable and give a clear viewpoint about BSC implementation. In addition, the positions of interviewees were from the medium and high levels in their companies, and they were involved in the BSC project. This, in turn, may provide the study with viewpoints of experts in BSC implementation.

Primarily, all interviewees strongly agreed that the Executives' and Senior managers' commitment and support is a very crucial factor for BSC success. They believe that motivation can come from senior managers and 'move up' to the chief executive officer (CEO) or can be ordered 'from the top down'. The interviewees also believe that the top management provided enough resources and support for the BSC project from the beginning until the end. However, the ways to get top management

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	STC	ZAC	ME	UU
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Interviewee position	CEO and CFO	CEO and CFO	CEO and CFO	CEO and CFO
Interviewee gender	Male	Male	Female	Male

involved in the BSC project and the nature of their participation varied from company to company (see [Table IV](#)).

All interviewees stated that successful BSC implementations require strong leadership, commitment, and participation by top management. For instance, the STC CEO said that:

The BSC team firstly explained the BSC concept to all the top management individually [...] all executives agreed that the BSC may support the company in the short and long term.

CFO stated that:

Top management and seniors were very supportive and committed to BSC and they always discuss BSC results in their meetings.

He also added that, "In 2002 the company decided to link the executives' compensations and rewards with the BSC's results".

The same viewpoint was expressed in Zamil Air Conditioner. The CFO believed that "Top management played an important role in BSC implementation. They were aware about the benefit that BSC may achieve for the company". He also added:

They provide the BSC with all resources needed and they arrange many workshops and training for all those involved [...] without clear support from the executive, BSC would not be a success.

However, in ME, top management commitment and support were not enough. The CFO stated that:

At the beginning of the BSC project, the top management were not convinced enough. They were in doubt as BSC is a new system and may not be adequate for the company.

She added, "But after they realized the benefits achieved by BSC implementation, serious commitment and support appeared".

In UU, the CFO believed that the support of top management for BSC was clear. He reported that:

Senior managers are driving our strategy [...] they were very committed and supportive for BSC because they found that the BSC helped them to measure the company's strategic objective and fulfil the strategy.

He continued by saying that, "The top management also were very convinced that BSC is an adequate system for performance measurement and helps to execute the company's strategy [...] therefore they were discussing the BSC's results in all their meetings".

Company	Reason (s) for top management support of BSC	Nature of participation
STC	Performance measurement	Regular meeting Monitoring
ZAC	Strategy Management Performance measurements	Reporting Regular meeting
ME	Strategic objective measurement	Regular meeting Empowerment
UU	Performance measurement	Regular meeting Reporting

Table IV.
Reasons for top management support of BSC and nature of their participation

6.2 Planning phase of balanced scorecard process

All four participating companies believe that planning for BSC is crucial. However, the planning phase varied from one company to another. In essence, all interviewees agreed that their companies had planned for BSC. They also insisted that without an accurate plan, the implementation of BSC would definitely have failed. As indicated in the BSC framework, all of the CSFs in the planning phase were applicable to two participating companies, but the other two companies applied only some of them (Table V).

6.2.1 *Saudi Telecom*. At STC, a comprehensive plan was prepared for building and implementation of BSC. The initial BSC was implemented at the beginning in a specific department as a pilot. After top management realized the benefits of BSC, they decided to implement it in all company sectors and departments. The CFO believed that STC stimulated its employees using BSC:

[...] STC tried to make the employees aware, especially at medium and high level, about the importance of BSC for the company [...] it provided them with many seminars about BSC [...] they also attended many BSC events in and outside Saudi Arabia.

In essence, STC appointed a special team for BSC. The appointed employee was committed to the BSC project and had attributes such as being a team worker, having acceptable experience in performance measurement, and speaking English. The CFO reported that “STC provides employees with detailed guidelines for BSC implementation in Power Point and Word, in Arabic and English languages”.

6.2.2 *Zamil Air Conditioners*. The BSC in ZAC was designed by an external consultant. Therefore, there was not a clear planning phase for BSC. At the beginning, the BSC was implemented at corporate level. The CFO believed that ZAC stimulated the employees with BSC implementation “[...] the BSC project was usually discussed in most of the top management meetings [...] many seminars in BSC were arranged and many training sessions as well”. ZAC’s top management were enthusiastic about BSC, and consequently they devoted a huge amount of time to it and provided the project with any resources required. However, ZAC did not appoint a BSC team. Instead, they asked each department to establish its BSC and submit it to top management directly. The CFO mentioned that there was no initial plan for BSC. He said: “[...] as I mentioned, the BSC was designed by consultants [...] so there was no initial plan for BSC [...] instead the consultant helped us to start our BSC”. The company followed the top-down approach to communicating the BSC, and feedback was required from each department.

6.2.3 *Mortgage Express*. ME initially implemented the BSC at corporate level. Top management did not give serious support to BSC at the beginning. The CFO pointed out that:

[...] at the beginning, I did not see serious support from the top management [...] I was the owner of the project, and all resources required were not available [...].

CSFs	STC	ZAC	ME	UU
Choosing unit	Pilot Unit	Corporate level	Corporate level	Corporate level
Stimulating culture	√	√		√
Executive sponsorship	√	√		√
The BSC team	√			√
Initial planning	√			√
Communicating BSC	√	√	√	√

Table V. CSFs implemented in planning phase in participating companies

She continued by saying “[...] but as the top management realized the benefits of BSC they started to give it serious consideration”. In addition, there was not a team for BSC in ME; instead, all BSC responsibilities were allocated to the interviewee, the Head of Business Excellence. The BSC was communicated top-down “[...] the BSC’s results were agreed by the top management [...] then each department’s results and comments could be seen via the intranet”

6.2.4 United Utilities. UU has a strategy to support new projects. Consequently, the BSC had serious support from the beginning. The BSC was implemented at corporate level. The company was very aware about the importance of performance measurements. Therefore, employees were stimulated and supported to implement BSC. The CFO stated that “[...] change is not easy [...] but the company stimulates the employees by providing them with some seminars about BSC [...] some inside and outside trainings were also arranged”. The company had appointed a team for BSC design and implementation, the so-called Strategy and Support Services team. In addition, the company cascaded the BSC through the whole company from top to bottom level. The CFO explained that:

[...] the strategic objectives are determined by top management [...] these objectives cascade to the lower levels [...] and each department has to set its objectives and measure them according to the general strategic objectives.

6.3. Development phase of balanced scorecard

All of the interviewees agreed that the development phase is important for a BSC project. They all agreed that BSC requires a clear vision, mission, values, and strategy. Most companies participating provide employees with training in BSC. One company followed the Kaplan and Norton perspectives, whereas others created their own (see [Table VI](#)).

6.3.1 Saudi Telecom. Irrespective of BSC implementation, STC has already set vision, mission, and values. The CFO stated that:

At the pilot stage of BSC, there was no connection between BSC and the company’s vision and mission [...] but we eventually decided to set our measures according to smart objectives for the whole company.

In addition, in the development phase, STC provided the BSC team with training in and outside the company. Further training was given to employees as a next step. STC followed Kaplan and Norton perspectives (Financial, Customer, Internal process, and Learning and Growth). The CFO stated that “[...] at the beginning we found a real difficulty to establish our measurements but we used benchmarking to find the appropriate measures”. STC Balanced Scorecard has about 25 measures for all the perspectives.

CSFs	STC	ZAC	ME	UU
Vision, Mission, Values, Strategy	√	√	√	√
Training	√			
Identifying BSC perspectives	Kaplan and Norton perspectives	Own perspectives	Own perspectives	Own perspectives
Setting objectives	√	√	√	√
Finalizing measures	√	√	√	√
Cause-and-effect linkage	√	√	√	√
Integration	√	√	√	√
KPIs	√	√	√	√

Table VI. CSFs implemented in the development phase in participating companies

In essence, STC believes that the BSC connects the company with its customers in a proper way “[. . .] BSC enabled us to create a customer survey to measure our customer satisfaction and have their comments”. In addition, in 2003, the STC created its strategy maps as an improvement to its BSC. The BSC system was integrated into the company’s system: “[. . .]. The company found no difficulty in integrating BSC with other systems”. The BSC team established a so-called ‘KPI library’ to assist the departments to determine their KPIs.

6.3.2 Zamil Air Conditioners. As noted, ZAC had no vision, mission, and values prior to developing BSC. Consequently, the external consultant asked ZAC to set them before starting the BSC project. Subsequently, the external consultant arranged some seminars and training only for managers to increase awareness of BSC. ZAC created its own BSC perspectives, which are similar to Kaplan and Norton’s. The CFO stated that:

[. . .] our company adjusted Kaplan’s and Norton’s perspectives slightly to create our own perspectives [. . .] our perspectives are Financial, Relationships, Internal Process, and Learning and Growth [. . .] these perspectives contain 25-30 measures altogether.

All STC objectives, measures, and targets were established by the external consultant, and reviewed and finalized before implementation to ensure that they were adequate and had cause-and-effect relationships.

6.3.3 Mortgage Express. ME had a vision, mission, and values in place. The CFO confirmed “[. . .] we have our vision, mission, and values before even thinking of BSC [. . .] and I think this may ease our starting point of BSC implementation”. However, the company had no training program specifically for BSC, but “[. . .] there were some training programs in Excellence, and this may help our employees to understand BSC quicker”. ME created its own BSC perspectives, which are similar to Kaplan and Norton. The CFO said:

[. . .] our company modified Kaplan’s and Norton’s perspectives to create our own perspectives [. . .] our perspectives are Financial, Customers, Internal Process, Society, and Learning and Growth [. . .] these perspectives have about 30 measures altogether.

In essence, all strategic objectives were determined prior to BSC implementation: “Each department determined its objectives, measures and targets according to the general strategic objectives”. The company also created new relationships with customers by distributing a survey to measure their satisfaction.

6.3.4 United Utilities. UU had a general vision, mission, and values for the whole company. Then, each business had to set its own vision, mission, and values according to the general one. UU had no specific training in BSC, but it usually provided employees with different training for BSC implementation, such as performance measurement training. UU creates its own BSC perspectives, which are different from Kaplan and Norton’s. The CFO stated that “our company has different perspectives from those in the Kaplan and Norton model [. . .] our perspectives are Customers, Employees, Shareholders, and Environment [. . .] these perspectives have about 25 measures”.

Each department of UU determines its own objectives, measures, and targets. Then the Strategy and Support Services team reviews and finalizes them to ensure that all objectives and measures support the strategic objectives. The team also ensures that each measure involves cause-and-effect relationship. Moreover, the BSC system is integrated with the whole system of UU:

[. . .] our BSC process and results are totally integrated with the whole system [. . .] I have to admit that we found difficulty at the beginning, but eventually we could integrate it.

6.4 Implementation phase of balanced scorecard

The BSC project has to be transferred from a strategic process to the implementation of a management control system in a more operational sense. Therefore, the deployment of the BSC implementation project plan has to be cascaded from the top to the bottom level. All four participating companies believed that the deployment of the BSC implementation project plan is crucial for BSC success. All but one of the CSFs in the implantation phase were applicable to two of the participating companies and the majority were applicable to the other two (Table VII).

6.4.1 Saudi Telecom. As previously stated, STC had a clear plan for BSC implementation. Top management agreed all its steps. The short-term plan was to implement BSC within 14 weeks at high company level (see Figure 1). The long-term plan was to implement BSC for the whole company in three years. However the CFO believed that “The top management attempted to accelerate the implementation plan in less than two years [...] because they realized the benefits gained”. As noted, STC has an adequate information system. This was used to help the BSC team, as well as special software for BSC implementation, and to cascade the BSC from the top to the bottom level. STC also planned to roll out the results between its departments. The interviewee stated that “BSC processes and results cascaded from top to bottom [...] and rolled out between the different departments”. He continued by saying:

I strongly agree that BSC plays an important role in our company [...] each BSC’s result may help us to refine our measures or processes [...] as evidence [...] in 2002 the top management of STC put the BSC reports as a fixed item in all its meetings.

6.4.2 Zamil Air Conditioners. As previously stated, ZAC’s BSC was designed by an external consultant, and ZAC had a clear plan for BSC implementation, which was agreed by both top management and the external consultant. BSC implementation progress was discussed regularly in top management meetings. The CFO pointed out that:

Unfortunately our information system does not serve the implementation of BSC in a proper way [...] and most BSC results are prepared manually [...] but we are considering finding adequate software to help us in BSC implementation.

ZAC followed the top-down approach to cascade BSC. However, each unit has to set its own objectives and measures in accordance with the company’s strategic objectives. Moreover, the company spent about three months cascading the BSC from the top to bottom level.

6.4.3 Mortgage Express. At the beginning, ME had no clear BSC implementation plan. The CFO confirmed that:

CSF	STC	ZAC	ME	UU
Implementation plan	√	√		√
Executive consensus	√	√	√	√
Finalizing BSC plan	√	√		√
Designing information plan	√		√	√
Cascading the BSC	√	√	√	√
Personal BSC				
Rolling out implementation plan	√	√	√	√
Fine-tuning and refining	√		√	√

Table VII.
CSF implemented in implementation phase in participating companies

At the beginning we had no clear implementation plan [...] I explained to top management, during a meeting, a suggested implementation plan [...] but they did not agree with most of it.

She continued, “In another meeting an initial implementation plan was agreed”. In addition, the ME information system supports the BSC implementation. All the BSC’s processes and results were displayed on the intranet of the company, and each department and individual had direct access to its results. In essence, ME followed the top-down approach to cascade the BSC processes and results. However, the company had no deadline or time frame for BSC implementation “We had no deadline for the implementation [...] but we spent about four months from the initial idea to rolling out the BSC”.

6.4.4 United Utilities. UU believed that the implementation phase is crucial for any system. Consequently, a clear BSC implementation plan was agreed. The CFO stated that:

UU attempts to improve the strategic direction, so BSC and KPIs have been selected to help us [...] and the top management agreed to start the plan of BSC implementation prepared by the BSC team.

In addition, the BSC results are regularly discussed at top management meetings and actions are taken in accordance with those results. Moreover, the information system of the company helps the BSC team to deliver BSC results: “We usually deliver BSC results for departments and individuals via our intranet”. In essence, the company followed the top-down approach to cascade the BSC processes and results. The top management asked the BSC team to cascade it within 6 months: “We were asked to cascade and roll out the BSC for not more than six months [...] and we did it”. BSC reports assist top management in refining many process and measures “Now BSC results help us to refine many process and measures in our company”

6.5 Benefits’ realization of balanced scorecard

All of the interviewees agreed that the BSC implementation enables the organization to achieve many benefits, such as regular reporting, problem solving, and action planning. However, the benefits gained by the participating companies showed variation. Most of the CSFs in the implementation phase, were applicable in the participating companies, whereas others were not (see [Table VIII](#)).

6.5.1 Saudi Telecom. STC has achieved many benefits from BSC implementation. The BSC enables the company to fulfil strategy and assess measurements regularly. The CFO pointed out “The BSC helps the company to fulfil its strategy by linking the measures with the company’s strategic objectives [...] BSC also helps us to assess the measures themselves”. The BSC results also assist the company in delivering information to the right personnel, in the right format, at the right time, and in the right quantity. The CFO also indicated that “We found that the BSC helped us to discover and resolve problems [...] take the right actions [...] and develop new performance standards”.

	CSFs	STC	ZAC	ME	UU
Table VIII. Realization of BSC benefits in participating companies	Measurements assessment	√	√	√	√
	Regular reporting	√		√	√
	Problem solving	√			√
	Action planning	√	√	√	√
	Benefits quantification	√	√		√
	Target re-calibration	√		√	√

6.5.2 *Zamil Air Conditioners*. ZAC, like the other participating companies, achieved many benefits from BSC implementation. The implementation of the BSC enables the company to review its measures frequently and identify the right combinations of measures. The CFO believed that “The implementation of BSC helps company staff to receive strategic information on a regular basis”. In addition, ZAC used the results of BSC to drive decision making throughout the organization. The BSC results achieved other benefits for the company: “BSC enables us to measure the level of our customers’ and our employees’ satisfaction [...] it also achieved many financial and competitive benefits”.

6.5.3 *Mortgage Express*. The most important benefit achieved by ME due to BSC implementation was the link between company measures and strategic objectives. BSC implementation also enabled the company to assess its measures frequently: “We assess our BSC measures quarterly to [...] to know whether the measures are still suitable or have to be changed”. Moreover, the company realized that the BSC’s results help to solve problems. The results also “help the company to assess individuals’ and the whole company’s performance [...] also help us in making some decisions”.

6.5.4 *United Utilities*. UU has realized many benefits from BSC implementation “In fact, I believe that the BSC has achieved a lot of unexpected benefits for our company”. The BSC implementation has assisted in reviewing the company’s measures frequently, and identifies the right combination of measures. In addition, the BSC improves feedback to specific managers so that adjustments to the strategic plan can be made during the operating period. Many actions are based on BSC results: “BSC provides us with brief and reliable information that may help us to take the right decisions”. The CFO believed that “BSC and KPIs are currently driving the development and deployment of organization strategy”.

6.6 *Sustainability phase of balanced scorecard*

As mentioned previously, sustainability is “The ability of an organisation to adapt to change in the business environment, to capture contemporary best practice methods and to achieve and maintain superior competitive performance” (Zairi, 2001). Consequently, organizations have to apply different methods that may help them achieve BSC sustainability. All four participating companies followed methods to sustain their BSC. Almost all the CSFs in the sustainability phase were applicable to almost all the participating companies (see Table IX).

6.6.1 *Saudi Telecom*. STC is attempting to sustain its BSC. The company has had automated BSC since 2003. The interviewee stated that:

When we decided to automate our BSC [...] we found many alternatives [...] but eventually we have chosen CorVu [...] we believe that automation of our BSC is important to its sustainability.

CSF	STC	ZAC	ME	UU
Automating the BSC	CorVu	Manual	Excel	Intranet
Regular Communication	√		√	√
Updating Measures	√	√	√	√
Maintain BSC	√	√	√	√
Reward and Recognition	√	√		√
Benchmarking	√	√	√	√
Corporate Alignment	√	√		√
Self-assessment	√	√	√	√

Table IX.
CSF implemented in sustainability phase in participating companies

In addition, the BSC team has conducted regular meetings to ensure that BSC measures are updated and BSC results reach the right people in the right time and right quantity. The company also linked employees' rewards and recognition with BSC results "We believe that BSC results can measure employees' performance accurately [...] therefore, we linked all our rewards for the different levels with BSC results". Moreover, the BSC team used BSC results for benchmarking: "The BSC is used to benchmark performance against other organizations". Finally, the company implements self-assessment annually by using the Malcolm Baldrige Excellence Model.

6.6.2 Zamil Air Conditioners. ZAC believes that continual benefits cannot be achieved unless BSC is sustained. The CFO said:

We believe that BSC automation is crucial for sustainability [...] but unfortunately we have not automated ours yet. However, currently we are searching for the suitable software that may achieve our requirements.

In addition, the BSC team have regular meetings to follow up BSC implementation. The team also updated its BSC measures annually. The CFO stated that: "Our top management is convinced that BSC results measure the company employees' performance [...] so, they decided to link rewards and compensations with BSC results". ZAC implements benchmarking in different aspects. One of those aspects is setting and stretching targets: "Our measures and targets are stretched according to external benchmarking". Finally, the company implements self-assessment annually by using the Malcolm Baldrige Excellence Model.

6.6.3 Mortgage Express. As with the previous two companies, the ME CFO strongly agreed that BSC sustainability is crucial to achieve continuous benefits. The company uses Excel sheets to deliver BSC results. Top management is aware of the need for the suitability in BSC measures. Therefore, measures are updated every six months to ensure that it still fulfils the company's requirements. Rewards are not linked to BSC measures:

I believe that BSC results enable us to know the employees' performance [...] but unfortunately we have not yet linked rewards with BSC [...] but I think we will do soon.

The company also uses the BSC results to benchmark performance against other organizations. Finally, the company implements self-assessment annually using the EFQM Excellence Model.

6.6.4 United Utilities. UU distribute BSC results through its intranet. The CFO pointed out that "We do not use special software for BSC implementation [...] because we do not need it [...] alternatively, we deliver our BSC results through our intranet". However, the BSC team conducts regular meetings to compare performance measures and progress against corporate goals. In addition, UU updates its BSC measures regularly: "The BSC measures are re-visited and re-defined on a regular basis to confirm their continued relevance". The company rewards and incentive systems are aligned with BSC measures. Furthermore, benchmarking is used to stretch and update BSC measures. The CFO confirmed that "The BSC team uses external benchmarking to update and stretch BSC measures". Finally, the company conducts self-assessment annually using the EFQM Excellence Model.

6.7 Learning and innovation of balanced scorecard

Learning and innovation is increasingly viewed as the deciding factor in whether an organization is able to retain or improve its competitive position in the world economy. All interviewees strongly agreed that learning and innovation is a very crucial factor for BSC

success. They all believe that the organization has to involve learning and innovation from the previous experience of BSC implementation. For instance, the STC CFO said:

“Our BSC results are reviewed on a regular basis [...] discussed, and revised frequently [...] We usually benefit from our previous experiences to avoid any expected problem in the future”.

The same viewpoint was repeated in ZAC:

“The top management attempts to get the BSC feedback regularly [...] the previous experience is very important for us and we use it as a base for our next steps”.

He added: “We also attempt to create a learning and innovation environment by encouraging employees to participate in the different activities and accept their suggestions and comments”.

In Express Mortgage the CFO believed that learning and innovation is important for any new system:

“I strongly believe that learning and innovation is very important either for BSC or any other new system [...] learning from previous experiences may help us to improve our work and system continuously”.

She continued by saying “Therefore, top management motivates employees to learn and innovate by participating in most of our activities and listening to their opinions and comments”.

In UU, the CFO believed that learning and innovation is crucial for BSC implementation. He reported that:

“Learning from our BSC implementation experience is very important for us [...] so, we encourage our employees to voice their opinions, criticisms and feedback on organizational functioning and performance”.

6.8 Obstacles of balanced scorecard implementation

While the possible benefits of BSC are obvious, BSC implementation across organizations may encounter many obstacles. All participating companies reported different obstacles encountered in BSC implementation.

The CFO from STC said that:

“We encountered a few obstacles and challenges in the first implementation of BSC such as culture and integration obstacles [...] but I believe the most important one was the resistance from some employees”.

He continued by saying “But we resolved this problem by convincing those employees that BSC is for measuring and improving the performance, not to blame them”.

The same viewpoint was repeated in ZAC:

“We faced many obstacles and problems in BSC implementation, one of which is that employees feel BSC is a punishment tool instead of a measurement tool”.

However, in ME there were different obstacles to BSC implementation. The CFO stated that:

The first challenge for me was to convince the top management about the importance of BSC [...] after that some Executives claimed that BSC is time-consuming [...] but all these claims disappeared as they realized the benefits of BSC”.

In UU, the CFO mentioned that some unexpected obstacles were encountered at the beginning of BSC implementation. He stated that:

“At the beginning of BSC implementation, the company faced a few obstacles, most of them related to cultural factors [...] I also believe that most of those obstacles were removed and resolved”.

7. Discussion and conclusions

This paper has provided a detailed analysis and discussion of four cases studies. These cases involved: STC (Saudi Arabia), ZAC (Saudi Arabia), ME (UK), and UU (UK). The study findings were derived from feeding the research questions into the developed theoretical framework. The CSFs for implementing BSC were identified, according to whether they were Executives' and senior managers' commitment factors, Planning phase factors, Development Phase factors, Implementation phase factors, Benefits' realization factors, Sustainability factors, and Learning and innovation factors. From the interviewees' responses and perceptions, it was found that a number of the CSF identified from the literature also existed within the BSC implementation in these four organizations, though with some contradictions in terms of the value or emphasis placed on them, and in terms of strategy and tactics (see [Table A1](#) in the [appendix](#)).

This section aims to analyse the successful implementation of the Balanced Scorecard in four cases through the lenses of the dialectical perspective. This paper draws on the view from [Seo and Creed \(2002\)](#) that institutional contradictions contain the seeds of institutional changes, because contradictions generate conflicts inside the organization, which create the conditions for institutional change to take place, as group or individuals recognize the need for change. In four cases, the level of institutional contradictions was slight. Therefore, resistance to BSC implementation was avoidable due to the strong adaptability in these cases and desire to change. As predicted by [Seo and Creed \(2002\)](#), in the case of strong adaptability, efficiency gaps and inter-institutional incompatibilities, mediated by institutional crisis, changes in the organization can happen in a revolutionary manner; and therefore, these changes will not be subjected to resistance and will eventually be institutionalized in the company.

The implementation of the BSC in four cases was motivated by institutional contradiction as presented by [Seo and Creed \(2002\)](#). The introduction of the Balanced Scorecard was motivated initially by technical and legitimacy reasons. [Greenwood \(1984\)](#) identified three antecedent requirements that had to be simultaneously met for change to be successful. First, he identified managerial succession at the top of the organization. The main argument is that the new senior manager will either have an agenda that he/she naturally wishes to pursue, or will feel under pressure to introduce change because those who hired him/her expect change to be made. Second, [Greenwood \(1984\)](#) identified the perception of a serious crisis in company performance, whether real or fabricated, that has become widely shared among members of the company. Third, [Greenwood \(1984\)](#) identified a 'better' accounting system as a replacement for an inferior system current in use.

In the case of the BSC implementation, these three elements were present to some extent, the users of the BSC in four cases claimed that the BSC was superior than the performance measurement system used in these cases. However, the implementation of the BSC was successful, as it was institutionalized in these organizations. The BSC process in these cases disagrees with the case of the EVA (Economic Value Added) implementation in RetailCo presented by [Burns et al. \(2003\)](#). They author argue that the three [Greenwood's \(1984\)](#) antecedents to change were present in RetailCo, but it was an unsuccessful change. [Burns et al. \(2003, p. 26\)](#) conclude that “what is missing from Greenwood's framework is sufficient attention to the alignment between the assumptions embodied in the new change initiative and the existing institutionalized rules and routines”. In the same vein, the institutional

theory postulates that institutionalization is an adaptive process, once in place, institutions are likely to be both psychologically and economic locked in (Scott, 1987, Scott, 2001, Burns and Nielsen, 2006). It seems the case of the BSC in four cases, as the performance measurement was strongly institutionalized in these organizations; the BSC was able to supplant this system. Consequently, the BSC was accepted and rooted in the organizations' values and beliefs. According to Seo and Creed (2002), the embedded institutions can be modified or supplanted with the accumulation of institutional contradictions that will trigger human praxis to introduce changes, that is, contradictions lead to a reflective shift in consciousness, which leads to actor mobilization that leads to collective action to introduce changes. In the BSC implementation, institutional contradictions were practically absent; and therefore human praxis was enabled to use the BSC on day-to-day basis. Therefore, the four cases provide empirical evidence regarding the main point made by Seo and Creed (2002) that the accumulation of institutional contradictions is the seed to successful changes in an organization.

Burns *et al.* (2003, p. 37) summarize the successful case of accounting system implementation just like BSC in the Polymer case by stating that:

([. . .]) it is important for a successful implementation to have powerful support for the new system, communication throughout the company, and involvement at all levels. It is also important for change implementation to be backed up by extensive and intensive training, as well as adequate resources for the implementation process.

In four cases, the first set of BSC changes had all the above elements. These changes had powerful support from the top management team. The BSC was communicated throughout the organization and involved all departments, including the operational areas. The changes were also backed up by a comprehensive training program with adequate amounts of material resources. In addition, the process of management change was initiated by an institutional crisis, which was caused by strong adaptability, inefficiency gaps, and institutional compatibilities (Seo and Creed, 2002). Therefore these institutional contradictions enabled human praxis to introduce changes and supplant the previous institutions by generating a reflective shift in consciousness, actor mobilization, and collective action (Seo and Creed, 2002).

On the other hand, the BSC implementation has most of the above characteristics of a successful accounting change. The BSC initially was supported by top management team, and the BSC has a priority in the four organizations; and as a consequence the BSC gain powerful support. The BSC was highly communicated throughout the organizations. In addition, there were sporadic episodes of training about the BSC and this project have received enough resources, especially in terms of computational systems. Finally, as discussed previously, the BSC initiative was motivated by institutional contradiction (Seo and Creed, 2002), as its motivation was initially based on technical reasons and lately on legitimacy reasons. As a result, the institutional contradiction has triggered human praxis (Seo and Creed, 2002) to use the BSC on day-to-day basis. Therefore, the BSC was institutionalized in these organizations, as the BSC was able to supplant the previous performance measurement system.

Although there are limitations to this study, as is the case with most empirical work, it does provide a number of significant findings as presented below.

First, the study findings have shown that BSC implementation issues are generic and are not based on organization nationality. However, in primary case studies, it was clear that the large size organizations have covered almost all the BSC CSFs suggested in this study, whereas medium and small organizations have not. Therefore, it is clear that large

organizations implemented BSC in a professional way, rather than small and medium organizations. Second, executives and senior managers are the owner of the BSC initiative. Their strong commitment to BSC and their assumption of active responsibility are fundamental elements in BSC success. Their commitment and involvement must be amply and visibly exhibited, and demonstrated at all levels to influence all participants in the BSC activities. Third, organizations have not yet been able to fully achieve the benefits of BSC. Findings have also shown that realization of BSC benefits tends to increase as BSC implementation becomes more successful. Fourth, the study reveals that a large number of organizations do not have software in place to assist the organization to implement the BSC accurately. This again is due to the fact that some organizations prefer to use simple systems such as Excel or Word to implement BSC, and others indicate that they consider the cost of the software. If organizations continue to implement BSC without introducing the adequate software, it will be very difficult to leverage or improve BSC. Fifth, maximizing the participation of all employees and middle management is crucial for BSC success. Although BSC relies on the top-down method, bottom-up participation of employees is also very important, especially working in teams and converting strategies into reality. Effective communication, recognition and reward are factors that play a crucial role in maximizing employee participation. Sixth, in terms of a BSC implementation, the study identified 27 critical factors that must be carefully considered to ensure success. The study divided these critical factors into three levels. The first level is dominant factors which the BSC finds it hard to implement without executives' and senior managers' commitment, BSC team, and identifying of adequate BSC perspectives. The second level is main factors, which are less critical than the dominant factors, namely, mission-values-vision-strategy, training, automating the BSC, setting objectives and measures, KPIs, rolling out implementation plan, updating BSC measures and linking it with reward, regular reporting, communicating BSC, cascading BSC, initial plan, corporate alignment, learning and innovation, design information system, measurements assessment, benchmarking, cause-and-effect linkage, stimulating culture, problem solving, and action planning. The third level is supporting factors, namely integration, self-assessment, finalizing BSC plan, finalizing measures, and fine tuning and refining. However, all these critical factors are highly interdependent. In other words, failure in one factor can affect the overall BSC implementation, therefore they must be carefully considered and all addressed at the same time to ensure successful BSC implementation. Seventh, the study findings have pointed out that successful BSC implementation is complex and difficult, and does not come without obstacles. The most important obstacle to BSC implementation was resistance to change followed, by BSC creates a higher workload and integration factors. Finally, based on overall findings of this study, a proposed integrated generic model for holistic BSC implementation was developed. Detailed descriptions and illustrations were given for the workings of the key elements of the model, based on empirical investigation of primary case studies and a survey questionnaire, exhibiting diverse organizational experience with BSC. More descriptions were also given through a comprehensive review of secondary case studies in the BSC literature.

8. Conclusions

The BSC implementation in four cases was successful change, as it became an organization's day-to-day activities and therefore it was institutionalized in these organizations. The BSC implementation was initially motivated by technical reasons and lately by legitimacy reasons. The BSC was implemented in four cases, when the new accounting systems introduced in these organizations had already been institutionalized,

that is, accepted and used on day-to-day basis. The dialectics approach postulates that for change to become institutionalized in these organizations, it needs to overcome the problem of embedded agency. According to [Seo and Creed \(2002\)](#), this process of BSC implementation is possible due to the accumulation of institutional contradiction that enables human praxis to introduce change. In four cases, the implementation of the BSC was motivated by institutional contradictions, such as adaptability or efficiency gaps. It is advocated the BSC implementation was successful, because this change was enabled by the accumulation of institutional contradictions, but the BSC was motivated by legitimacy reasons. Therefore, the BSC could supplant the previous performance measurement system which was introduced in these cases.

Other factors contributed to the successful implementation of the BSC in four cases. First, the accounting and management style focussed on the short-term financial performance of these organizations, and therefore, the BSC became balanced in terms of the integration between non-financial and financial performance measures. Second, huge support of the BSC among the managers and employees, especially because the BSC was linked to personal evaluation or incentive system. Third, the view that the BSC was appropriate for four cases, because these organizations operate in a regulated industry as a private monopoly, and therefore, tend to have the same set of performance measures along the years. Finally, the BSC implementation was overlapping of competing techniques, such as the Sarbanes-Oxley (SOX), ISO, and 6-sigma implementations. All the above factors contributed to decline of interest on the part of the top management team, managers and employees regarding the BSC. The successful implementation of the BSC initiative in four cases was the fact that it was triggered by the accumulation of institutional contradiction. Therefore, human praxis was fully mobilized to introduce the BSC into these organizations. We also predicted that if the BSC was triggered by strong institutional contradictions, human praxis would have been enabled in a way that could have overcome any barriers.

This paper contributes to the literature on organizational and accounting change that emphasis the crucial role that institutional contradiction plays in the process of change ([Burns and Baldvinsdottir, 2005](#); [Abrahamsson and Gerdin, 2006](#); [Burns and Nielsen, 2006](#); [Hopper and Major, 2007](#); [Kotter, 2007](#); [Farjoun, 2010](#); [Pache and Santos, 2010](#); [Sharma *et al.*, 2010](#); [Smith and Lewis, 2011](#)) by extending the [Seo and Creed \(2002\)](#) framework. We also contribute to the literature by providing rich empirical evidence about the successful implementation of the BSC system, as most of the cases of change focus on failure initiatives ([Scott, 2010](#)). Whilst this paper advances our existing theoretical knowledge in terms of the process of accounting change and the nature of accounting initiatives, theoretical and empirical insights from the paper are also relevant to managers and practitioners. The research takes managers away from their day-to-day implementation activities and enables them to see from a broader perspective how accounting changes were operationalized within their organizations. In terms of future research, the study theoretical framework can be used to explore processes of accounting change in other organizations as the validity of the theoretical framework presented in this paper would be greatly enhanced if supported by other studies of organizational and accounting change.

The study agreed that BSC can yield a wide range of benefits that are of a tangible and intangible nature. In essence, adhering to the various levels of application of BSC will ensure that organizations can derive maximum benefits from BSC, and that the decision-making process and the flow of information happen in a seamless, corporate-wide perspective. Finally, it is hoped that the theory and research findings presented in this research can aid the development of the BSC and serve as a consultative tool for organizations in their BSC implementation.

The findings of this study are important and relevant to all the different sized organizations in the different sectors and industries. This study also makes a significant contribution to our society in general. It has provided an insight into the various principles and techniques of a successful BSC implementation. Despite the increasing reputation of BSC, its implementation is still complex. Consequently, this study has recognized a series of critical issues that must be carefully considered to ensure successful implementation. These factors culminated in the proposed generic model. Furthermore, adhering to the various levels of application of BSC model will ensure that organizations can derive maximum benefits.

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Appendix

	STC	ZAC	ME	UU
Based in	Saudi Arabia	Saudi Arabia	UK	UK
Primary business	Manufacturing	Financial	Services	
Telecommunications				
No. of employees	21,500	750	450	17,000
Year of BSC implementation	2000	2001	2001	1999
Interviewee position	CEO and CFO	CEO and CFO	CEO and CFO	CEO and CFO
Interviewee Gender	Male	Male	Female	Male
Executives' and senior managers' commitment	✓	✓		✓
<i>Planning Phase</i>				
Choosing unit	Pilot Unit	Corporate level	Corporate level	Corporate level
Stimulating culture	✓	✓		✓
Executive sponsorship	✓	✓		✓
BSC team	✓			✓
Initial planning	✓			✓
Communicating BSC	✓	✓	✓	✓
<i>Developing Phase</i>				
Vision, Mission, Values, Strategy	✓	✓	✓	✓
Training	✓			
Identifying BSC perspectives	Kaplan and Norton perspectives	Own perspectives	Own perspectives	Own perspectives
Setting objectives	✓	✓	✓	✓
Finalizing measures	✓	✓	✓	✓
Cause-and-effect linkage	✓	✓		✓
Integration	✓	✓		✓
KPIs	✓	✓	✓	✓
<i>Implementation Phase</i>				
Implementation plan	✓	✓		✓
Executive consensus	✓	✓	✓	✓
Finalizing BSC plan	✓	✓		✓
Designing information plan	✓		✓	✓
Cascading BSC	✓	✓	✓	✓
Personal BSC				
Rolling out implementation plan	✓	✓	✓	✓
Fine-tuning and Refining	✓		✓	✓
<i>Benefits realization</i>				
Measurements assessment	✓	✓	✓	✓
Regular reporting	✓		✓	✓
Problem solving	✓			✓
Action planning	✓	✓	✓	✓
Benefits quantification	✓	✓		✓
Target Re-calibration	✓		✓	✓
<i>Sustainability phase</i>				
Automating the BSC	CorVu	Manual	Excel	Intranet
Regular communication	✓		✓	✓
Updating measures	✓	✓	✓	✓
Maintain BSC	✓	✓	✓	✓
Reward and recognition	✓	✓		✓
Benchmarking	✓	✓	✓	✓
Corporate alignment	✓	✓		✓
Self-assessment	✓	✓	✓	✓
Learning and innovation	✓	✓	✓	✓

Table AI.
Summary of
organizations and
CSFs implemented in
each phase of BSC
implementation